

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of the claims in the application.

Listing of Claims

1. (currently amended) A mobile device (404) capable of supporting packet data services and voice services offered by wireless networks, the mobile device comprising:

a transceiver for exchanging packet data service authentication information with the wireless networks;

a memory;

a packet data services (422) blacklist provided in the memory, the packet data services blacklist identifying wireless networks that do not provide packet data services to the mobile device, the packet data services blacklist being based on previous packet data service authentication rejections and being distinct from a voice services blacklist, the packet data services blacklist including a flag indicating whether an identification of a wireless network blacklisted in relation to the mobile device has been communicated to another device; and

a processor for updating the packet data services blacklist in response to newly received packet data service authentication information.

2. (currently amended) The mobile device of claim 1 wherein the packet data services blacklist includes an element selected from the group consisting of: a system identifier and network identifier (432) for each wireless network not providing packet data services to the mobile device; a timer value (434) for each wireless network not providing packet data services to the mobile device; and an age timer for each wireless network not providing packet data services to the mobile device; ~~and a flag (436) indicating whether an identification of a blacklisted wireless network has been passed to a server.~~

3. (original) The mobile device of claim 1 wherein the packet data services blacklist includes a composite packet data services blacklist received from a server.

4. (currently amended) A method of data service discovery for a mobile device (404) having a packet data services (422) blacklist comprising:

detecting a wireless network;

examining the packet data services blacklist stored on the mobile device, the packet data services blacklist being distinct from a voice services blacklist;

if the detected wireless network is listed in the packet data services blacklist, refraining from making any packet data call attempts for a predetermined period of time; and

otherwise, determining whether the wireless network provides packet data services to the mobile device, and adding the wireless network to the packet data services blacklist if the wireless network does not provide packet data services to the mobile device;

determining whether an identification of a wireless network newly blacklisted in relation to the mobile device has been communicated to another device; and

notifying the other device of the newly blacklisted wireless network if it is determined that the identification has not been communicated to the other device.

5. (previously presented) The method of claim 4 further comprising, prior to the step of examining the packet data services blacklist, the step of determining whether the wireless network supports data service.

6. (original) The method of claim 4 wherein the step of determining whether the wireless network provides packet data services to the mobile device comprises the step of authenticating the mobile device on the wireless network.

7. (currently amended) The method of claim 4 further comprising a step selected from the group consisting of: starting an age timer associated with a wireless network that is added to the packet data services blacklist; clearing an age timer associated with a wireless network in response to satisfaction of a reset condition; ~~notifying a server of a newly blacklisted wireless network~~; and receiving a composite packet data services blacklist from a server.

8. (original) The method of claim 4 further comprising the step of clearing the packet data services blacklist in response to a provisioning reset condition.

9. (previously presented) The method of claim 4 further comprising a step selected from the group consisting of: sending a notification to a server if a mobile device finds a wireless network which was not previously providing packet data services to the mobile device and is

now providing packet data services to the mobile device; and sending a notification from the server to other mobile devices to clear the entry of a wireless network which was previously not providing packet data services but currently is providing packet data services.

10. (currently amended) A method of packet data service notification in a wireless network, the wireless network including a server (428) and a mobile device (404), the method comprising:

receiving at the server a registration of a newly powered-up mobile device;

retrieving a server-stored packet data services (422) blacklist identifying wireless networks that do not provide packet data services to the newly powered-up mobile device, the server-stored packet data services blacklist being distinct from a voice services blacklist;

updating the server-stored packet data services blacklist in response to receiving an identification of a wireless network blacklisted in relation to another mobile device; and

sending the updated server-stored packet data services blacklist from the server to the newly powered-up mobile device for reception by and storage on the mobile device.

11. (new) The mobile device of claim 1 wherein the processor:

prepares a notification to a server if the mobile device finds a wireless network which was not previously providing packet data services to the mobile device and is now providing packet data services to the mobile device; and

processes a notification received from a server to other mobile devices to clear the entry of a wireless network which was previously not providing packet data services but currently is providing packet data services.

12. (new) The mobile device of claim 1 wherein the other device comprises a server.

13. (new) The method of claim 4 wherein the other device comprises a server.

14. (new) The mobile device of claim 1 further comprising a historical blacklist provided in the memory, distinct from the packet data services blacklist and the voice services blacklist, the historical blacklist identifying wireless networks that are no longer in the packet data services blacklist and were once in the packet data services blacklist within a particular time period.

15. (new) The method of claim 4 further comprising:

determining whether a current system identifier is stored in a historical blacklist in response to a determination that there are no wireless networks newly blacklisted in relation to the mobile device for which an identification has not been communicated to the other device,

the historical blacklist identifying wireless networks that are no longer in the packet data services blacklist and were once in the packet data services blacklist within a particular time period, the historical blacklist being distinct from the packet data services blacklist and the voice services blacklist.

16. (new) The method of claim 15 wherein the other device comprises a home server, and further comprising:

notifying the home server of a change in status of the current system identifier; and
removing the current system identifier from the historical blacklist.